

Viamaster LED Series Luminaires

For Hazardous and Adverse Locations

NEC/CEC:
 Class I, Division 2, Groups A, B, C, D
 Class I, Zone 2, Group IIC
 Simultaneous Exposure (Class I,
 Division 2/Class II, Division 1)
 Type 3R, 4X

NEC/CEC:
 Wet Locations
 IP66

ATEX/IECEx:
 Zones 2 and 22
 Ⓢ II 3 GD
 EPL Gc and Dc
 Ex nA IIC; Ex tc IIIC
 IP66; IK08

ATEX/IECEx:
 Zone 21
 Ⓢ II 2 D
 EPL Db
 Ex tb IIIC
 IK08

Applications

- For use in hazardous locations defined by the NEC/CEC and ATEX/IECEx.
- For use in locations where a high degree of corrosion resistance is required.
- For indoor or outdoor use where protection against dirt, water and moisture is necessary
- Typical applications include:
 - Oil refineries
 - Petrochemical facilities
 - Pulp and paper mills
 - Food processing plants
 - Warehouses
 - Underground tunnels
 - General manufacturing facilities

Features

- 60,000+ hour LED life for years of maintenance free operation.
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Contemporary, low profile design suitable for tight spaces.
- Field replaceable components are available.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Optional safety cables prevent luminaire from falling.
- Terminal blocks provided for field wiring.
- NEC/CEC version:
 - Full range of lumen outputs, with light distribution equivalent to Appleton's FV Series.
 - Easy to retrofit in same mounting footprint as Appleton's FV Series fluorescent fixtures.
 - (1) 3/4" NPT close up plug provided.
- ATEX/IECEx version:
 - Full range of lumen outputs, with light distribution equivalent to Appleton's FN Series.
 - Easy to retrofit in same mounting footprint as Appleton's FN Series fluorescent fixtures.
 - (1) M20 plug or (1) M25 plug provided.

Standard Materials

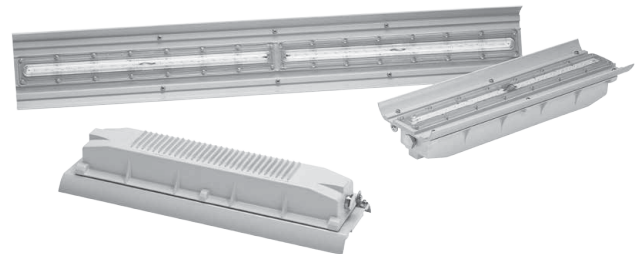
- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant polycarbonate lens
- Gasket: silicone rubber, mechanically secured
- Bolts and close up plugs: stainless steel

Standard Finishes

- Housing: gray polyester

Options

- For optional safety cables, add suffix **-C** to the end of the catalog number.
- NEC/CEC version:
 - For optional fuse, add suffix **-F** to the end of the catalog number.



NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 8750, UL 844
- CSA Standards: C22.2 No. 250.0, C22.2 No. 137
- cCSAus Certified: Pending
- Ambient Temperature:
 - 120-277 Volts: -20 °C up to +65 °C (-4 °C up to +149 °F)
 - 347-480 Volts: -40 °C up to +65 °C (-40 °C up to +149 °F)

ATEX/IECEx Certifications and Compliances

- Certification Type: LLEDA
 - Gas: Zone 2
 - Conforming to ATEX 94/9/EC: Ⓢ II 3 G
 - Protection Level: EPL Gc
 - Ex Protection: Ex nA IIC
 - T Rating: See Technical Data table
 - EC Declaration of Conformity:
 - ATEX Certificate: LCIE 14 ATEX xxxx
 - IECEx Certificate: IECEx LCIE 14.xxxx
 - Dust: Zones 21 and 22
 - Conforming to ATEX 94/9/EC: Ⓢ II 2 D and II 3 D
 - Protection Level: EPL Db and Dc
 - Ex Protection: Ex tb IIIC and Ex tc IIIC
 - T Rating: See Technical Data table
 - EC Declaration of Conformity:
 - ATEX Certificate, Zone 21: LCIE 14 ATEX xxxx
 - ATEX Certificate, Zone 22: LCIE 14 ATEX xxxx
 - IECEx Certificate, Zone 21: IECEx LCIE 14.xxxx
 - IECEx Certificate, Zone 22: IECEx LCIE 14.xxxx
- Ambient Temperature: -20 °C up to +65 °C (-4 °C up to +149 °F)
- Index of Protection: IP66; IK08
- Ex Standards: EN/IEC 60079-0; 60079-15; 60079-31
- Product Standards: EN/IEC 61347-1; 61347-2; 61598-1
- EMC Standards: EN/IEC 61000.4.2; 61000.4.3; 61000.4.4; 61000.4.5; 61000.4.6; 61000.4.8; 61000.4.11

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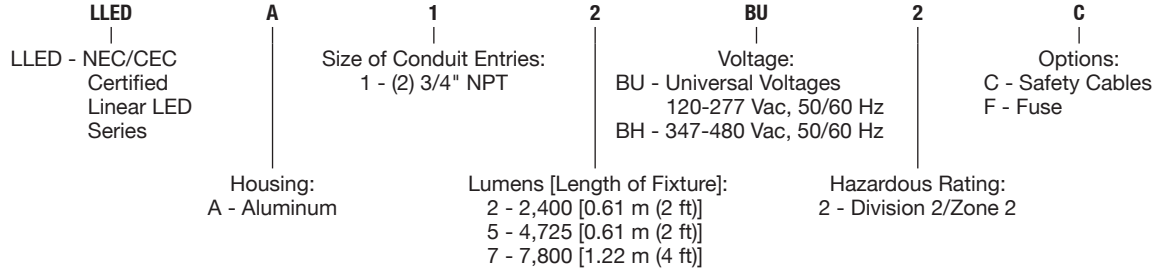
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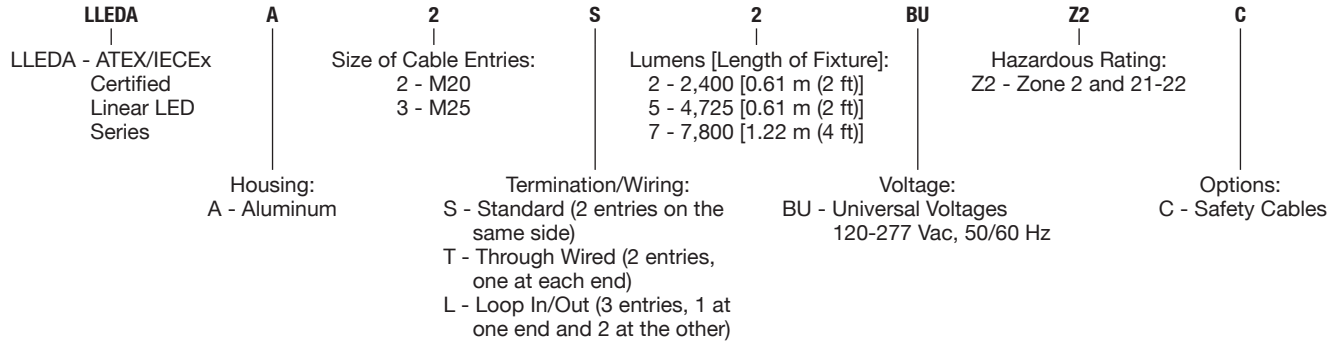
ATEX/IECEX:
 Zone 21
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Order using catalog numbering guides below or select catalog number from tables on following pages.

Catalog Numbering Guide – NEC/CEC Certified Linear LED



Catalog Numbering Guide – ATEX/IECEX Certified Linear LED



Lighting — LED

NEC/CEC ENCLOSED AND GASKETED CLASS/ZONE AND ATEX/IEC/NBR IEC ZONE 2 RATED — AREA — LED

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Technical Data

Lamp		Ambient Temperature °C (°F)	Supply Wire Temperature °C (°F)	NEC/CEC					Gas/Dust Simultaneous ① Class I, Division 2/ Class II, Division 1	ATEX/IECEX	
Lumen Output	Type			Class I, Division 2 ①	Gas Groups	Class I, Zone 2, AEx nA IIC, Ex nA IIC	Class II, Division 1 and 2 ②	Dust Groups		Gas Ex nA IIC ①	Dust Ex tb IIIC Ex tc IIIC ③
2,400	LED	40 (104)	60 (140)	T5	A, B, C, D	T6	—	—	—	T6 (69 °C)	63 °C
		55 (131)	65 (149)	T4A	A, B, C, D	T6	—	—	—	T5 (89 °C)	78 °C
		65 (149)	75 (167)	T4A	A, B, C, D	T6	—	—	—	T5 (94 °C)	83 °C
4,725	LED	40 (104)	65 (149)	T4A	A, B, C, D	T6	—	—	—	T4 (129 °C)	64 °C
		55 (131)	65 (149)	T4	A, B, C, D	T6	—	—	—	T3 (144 °C)	79 °C
		60 (140)	75 (167)	T4	A, B, C, D	T6	—	—	—	T3 (148 °C)	84 °C
7,800	LED	40 (104)	65 (149)	T4A	A, B, C, D	T6	—	—	—	T4 (130 °C)	64 °C
		55 (131)	65 (149)	T4A	A, B, C, D	T6	—	—	—	T3 (145 °C)	79 °C
		60 (140)	75 (167)	T4	A, B, C, D	T6	—	—	—	T3 (149 °C)	84 °C

“T” Numbers Represent the Maximum Internal Temperature ① or Maximum Surface Temperature ②

“T” #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351-450 (664-842)	326-350 (619-662)	301-325 (574-617)	281-300 (538-572)	261-280 (502-536)	231-260 (448-500)	216-230 (421-446)	201-215 (394-419)	181-200 (358-392)	166-180 (331-356)	161-165 (322-329)	136-160 (277-320)	121-135 (250-275)	101-120 (214-248)	86-100 (187-212)	85 (185)

“T” #	ATEX/IECEX and NBR IEC					
	T1	T2	T3	T4	T5	T6
Temp. Range °C (°F)	301-450 (547-842)	201-300 (394-572)	136-200 (277-392)	101-135 (214-275)	86-100 (187-212)	85 (185)

① T numbers represent the maximum internal temperature for Class I, Division 2 and Class I, Zone 2 locations designated by the NEC.

② T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 1 and 2 as designated by the NEC or Zone 2 (Gas) and 22 (Dust) locations as designated by the IEC.

③ T numbers represent the maximum external surface temperature for use in Zones 21 and 22.

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ATEX/IECEX:
 Zone 21
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 Ex tb IIIC
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Lamp Comparison Chart — Lamp Life (Hours) 60,000+

Lamp Data	Lumens	Line Current Amps	Input Power	CRI	Color Temp CCT	Length	Certifications
LLEDA12BU2	2,400	.19 @ 120 V .10 @ 277 V	23	70	5394	0.61 m (2 ft)	NEC/CEC
LLEDA12BH2	2,400	.07 @ 347 V .06 @ 480 V					
LLEDAA2S2BUZ2	2,400	.19 @ 120 V	23	70	5394	0.61 m (2 ft)	ATEX/IECEX
LLEDAA3S2BUZ2		.10 @ 277 V					
LLEDAA2T2BUZ2	2,400	.19 @ 120 V	23	70	5394	0.61 m (2 ft)	ATEX/IECEX
LLEDAA3T2BUZ2		.10 @ 277 V					
LLEDAA2L2BUZ2	2,400	.19 @ 120 V	23	70	5394	0.61 m (2 ft)	ATEX/IECEX
LLEDAA3L2BUZ2		.10 @ 277 V					
LLEDA15BU2	4,725	.31 @ 120 V .17 @ 277 V	46	70	5371	0.61 m (2 ft)	NEC/CEC
LLEDA15BH2	4,725	.13 @ 347 V .10 @ 480 V					
LLEDAA2S5BUZ2	4,725	.31 @ 120 V	46	70	5371	0.61 m (2 ft)	ATEX/IECEX
LLEDAA3S5BUZ2		.17 @ 277 V					
LLEDAA2T5BUZ2	4,725	.31 @ 120 V	46	70	5371	0.61 m (2 ft)	ATEX/IECEX
LLEDAA3T5BUZ2		.17 @ 277 V					
LLEDAA2L5BUZ2	4,725	.31 @ 120 V	46	70	5371	0.61 m (2 ft)	ATEX/IECEX
LLEDAA3L5BUZ2		.17 @ 277 V					
LLEDA17BU2	7,800	.68 @ 120 V .31 @ 277 V	82	70	5452	1.22 m (4 ft)	NEC/CEC
LLEDA17BH2	7,800	.24 @ 347 V .18 @ 480 V					
LLEDAA2S7BUZ2	7,800	.68 @ 120 V	82	70	5452	1.22 m (4 ft)	ATEX/IECEX
LLEDAA3S7BUZ2		.31 @ 277 V					
LLEDAA2T7BUZ2	7,800	.68 @ 120 V	82	70	5452	1.22 m (4 ft)	ATEX/IECEX
LLEDAA3T7BUZ2		.31 @ 277 V					
LLEDAA2L7BUZ2	7,800	.68 @ 120 V	82	70	5452	1.22 m (4 ft)	ATEX/IECEX
LLEDAA3L7BUZ2		.31 @ 277 V					

Lighting — LED

NEC/CEC ENCLOSED AND GASKETED CLASS/ZONE AND ATEX/IEC/NBR IEC ZONE 2 RATED — AREA — LED

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ATEX/IECEX:
Zone 21
Ⓢ II 2 D
EPL Db
Ex tb IIIC
IK08

	Conduit/Cable Entries	Voltage	Hazardous Rating	Weight kg (lb)	Catalog Numbers
2,400 Lumens — 0.61 m (2 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	Division 2/Zone 2	6.21 (13.7)	LLEDA12BU2 ④
	3/4" NPT (2)	347-480 Vac, 50/60 Hz			LLEDA12BH2 ④
	M20 Standard ①	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	6.21 (13.7)	LLEDAA2S2BUZ2 ⑤
	M25 Standard ①	120-277 Vac, 50/60 Hz			LLEDAA3S2BUZ2 ⑤
	M20 Through Wired ②	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	6.21 (13.7)	LLEDAA2T2BUZ2 ⑤
	M25 Through Wired ②	120-277 Vac, 50/60 Hz			LLEDAA3T2BUZ2 ⑤
	M20 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	6.21 (13.7)	LLEDAA2L2BUZ2 ⑤
	M25 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz			LLEDAA3L2BUZ2 ⑤
4,725 Lumens — 0.61 m (2 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	Division 2/Zone 2	6.35 (14.0)	LLEDA15BU2 ④
	3/4" NPT (2)	347-480 Vac, 50/60 Hz			LLEDA15BH2 ④
	M20 Standard ①	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	6.35 (14.0)	LLEDAA2S5BUZ2 ⑤
	M25 Standard ①	120-277 Vac, 50/60 Hz			LLEDAA3S5BUZ2 ⑤
	M20 Through Wired ②	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	6.35 (14.0)	LLEDAA2T5BUZ2 ⑤
	M25 Through Wired ②	120-277 Vac, 50/60 Hz			LLEDAA3T5BUZ2 ⑤
	M20 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	6.35 (14.0)	LLEDAA2L5BUZ2 ⑤
	M25 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz			LLEDAA3L5BUZ2 ⑤
7,800 Lumens — 1.22 m (4 ft)					
	3/4" NPT (2)	120-277 Vac, 50/60 Hz	Division 2/Zone 2	8.69 (19.15)	LLEDA17BU2 ④
	3/4" NPT (2)	347-480 Vac, 50/60 Hz			LLEDA17BH2 ④
	M20 Standard ①	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	8.69 (19.15)	LLEDAA2S7BUZ2 ⑤
	M25 Standard ①	120-277 Vac, 50/60 Hz			LLEDAA3S7BUZ2 ⑤
	M20 Through Wired ②	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	8.69 (19.15)	LLEDAA2T7BUZ2 ⑤
	M25 Through Wired ②	120-277 Vac, 50/60 Hz			LLEDAA3T7BUZ2 ⑤
	M20 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz	Zone 2 and 21-22	8.69 (19.15)	LLEDAA2L7BUZ2 ⑤
	M25 Loop In/Loop Out ③	120-277 Vac, 50/60 Hz			LLEDAA3L7BUZ2 ⑤

① Standard cable entry provides 2 entries on the same side of the housing.

② Through wired cable entry provides 2 entries, one at each end of the housing.


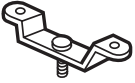






③ Loop In/Loop Out cable entry provides 3 entries, 1 at one and 2 at the other end of the housing.

④ NEC/CEC: for optional safety cables, add suffix -C to the end of the catalog number. For optional fuse, add suffix -F to the end of the catalog number.

⑤ ATEX/IECEX: For optional safety cables, add suffix -C to the end of the catalog number.

Viamaster LED Series Luminaires

For Hazardous and Adverse Locations

Accessories and Replacement Parts		
	Description	Catalog Number
Mounting Brackets — Set of Two		
	Fixing Brackets for Surface Installation 316 stainless steel	FEFBS
	Surface Mounting Aluminium (gray painted)	FESBA
	Surface Mounting 316 stainless steel	FESBS
	Surface Mounting 14-gauge stainless steel	FVSM
	Hinged Brackets for Adjusting Luminaire Aluminium	FEHBA
	Fixed 45° Wall Mount 11-gauge (1/8") stainless steel	FVWFM
	M8 Ring Bolts Zinc plated steel — For use with optional safety chain (not provided)	FERBM8Z
	Half Clamp Brackets for Pole Mounting Diameter for 1-1/4 to 1-1/2" pole: 42 mm (1.65 in) to 49 mm (1.93 in) 316 stainless steel	FEHC49S
	Diameter for 2" pole: 60 mm (2.36 in) 316 stainless steel	FEHC60S
Retrofit Brackets — Set of Two		
	Adapts mounting holes for 4 foot fixture to 700 mm mounting centers	LLEDRB
Fall Prevention Kit — Set of Two		
	Safety Cables — Attached to fixtures to guard against them falling when the primary method of attachment fails.	LLEDSC
Replacement Lens		
	Clear polycarbonate lens with an integral gasket	LLEDCLPL
Replacement Drivers		
	120-277 Vac driver	LLEDDBU
	347-480 Vac driver	LLEDDBH

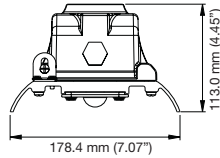
Lighting — LED

NEC/CEC ENCLOSED AND GASKETED CLASS/ZONE AND ATEX/IEC/NBR IEC ZONE 2 RATED — AREA — LED

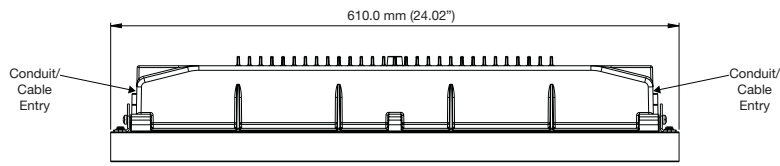
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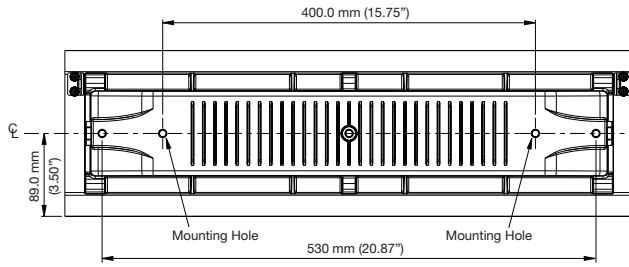
Dimensions in Millimeters (Inches)



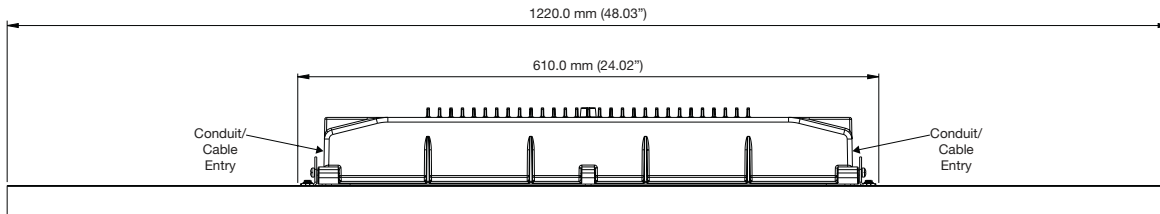
End View — 0.61 m (2 ft) and 1.22 m (4 ft) Versions



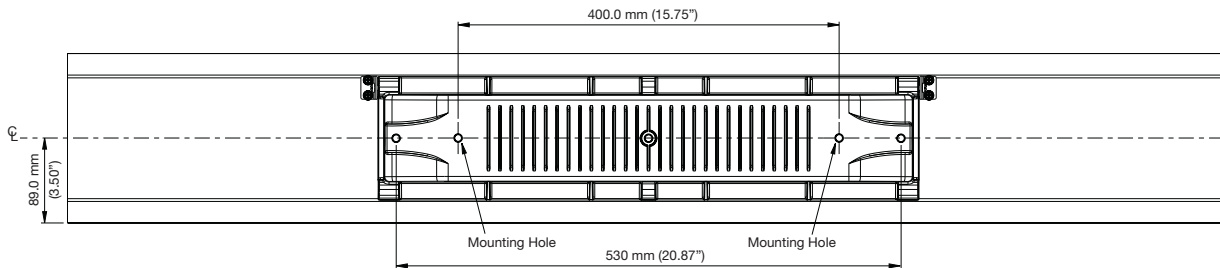
Side View — 0.61 m (2 ft) Versions



Top (Mounting) View — 0.61 m (2 ft) Versions



Side View — 1.22 m (4 ft) Version



Top (Mounting) View — 1.22 m (4 ft) Version

Lighting — LED

NEC/CEC ENCLOSED AND GASKETED CLASS/ZONE AND ATEX/IEC/NBR IEC ZONE 2 RATED — AREA — LED

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For Hazardous and Adverse Locations

Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **ID140031A**

Catalog Number: LLEDA12BU2

Lamps: linear LED fixture, one LED board for a total of 10 LEDs, aluminum LED reflector is curved painted gray, 609.6 millimeters (24 inches) long x 177.8 millimeters (7 inches) wide, with lexan 163R polycarbonate lens.

Candela Distribution

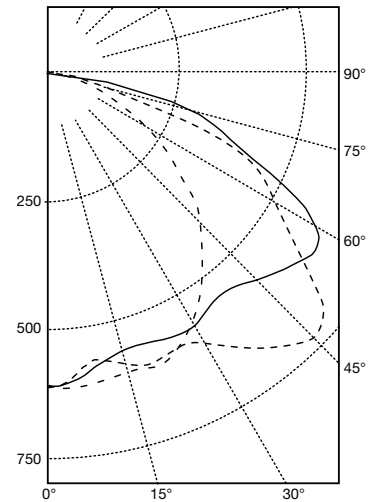
	0.0	22.5	45.0	67.5	90.0	Flux
0	613	613	613	613	613	
5	596	594	599	613	616	57
15	588	578	560	585	603	164
25	594	591	567	520	589	263
35	657	624	548	475	513	351
45	727	698	570	438	408	437
55	592	634	620	355	291	456
65	447	450	485	288	171	378
75	122	145	278	315	67	223
85	4	5	29	104	8	49
90	0	0	1	6	3	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	484	20.3
0-40	835	35.1
0-60	1728	72.6
0-90	2379	100.0

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.7	1.3



Lighting — LED

NEC/CEC ENCLOSED AND GASKETED CLASS /ZONE AND ATEX/IEC/NBR IEC ZONE 2 RATED — AREA — LED

REPORT NUMBER: **ID140011A**

Catalog Number: LLEDA15BU2

Lamps: linear LED fixture, two LED boards for a total of 20 LEDs, aluminum LED reflector is curved painted gray, 609.6 millimeters (24 inches) long x 177.8 millimeters (7 inches) wide, with lexan 163R polycarbonate lens.

Candela Distribution

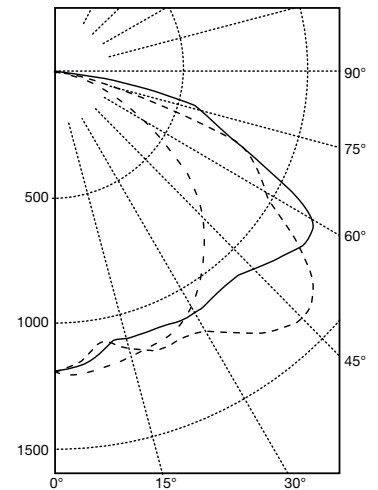
	0.0	22.5	45.0	67.5	90.0	Flux
0	1190	1190	1190	1190	1190	
5	1152	1162	1169	1178	1204	110
15	1145	1127	1096	1120	1171	319
25	1173	1163	1111	1018	1129	514
35	1266	1210	1190	916	1007	685
45	1392	1348	1115	851	827	853
55	1174	1246	1209	706	576	897
65	875	868	965	560	343	745
75	300	391	601	594	145	480
85	12	15	69	257	32	115
90	0	1	14	35	16	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	943	19.9
0-40	1628	34.4
0-60	3378	71.5
0-90	4718	99.8

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.7	1.3



Viamaster LED Series Luminaires

For Hazardous and Adverse Locations

Photometric Data – DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **ID140021A**

Catalog Number: LLEDA17BU2

Lamps: linear LED fixture, four LEDs board for a total of 36 LEDs, aluminum LED reflector is curved painted gray, 1219.2 millimeters (48 inches) long x 177.8 millimeters (7 Inches) wide, with lexan 163R polycarbonate lens.

Candela Distribution

	0.0	22.5	45.0	67.5	90.0	Flux
0	1966	1966	1966	1966	1966	
5	1884	1904	1914	1941	1979	182
15	1874	1864	1812	1876	1942	529
25	1810	1904	1813	1677	1906	845
35	2076	1997	1770	1525	1681	1128
45	2309	2252	1827	1409	1366	1411
55	1952	2100	2032	1162	971	1501
65	1474	1512	967	944	579	1270
75	427	507	91	1064	225	768
85	13	15	8	390	32	173
90	0	1	6	28	13	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1555	19.9
0-40	2683	34.3
0-60	5596	71.6
0-90	7806	99.9

CIE Type – Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.7	1.3

